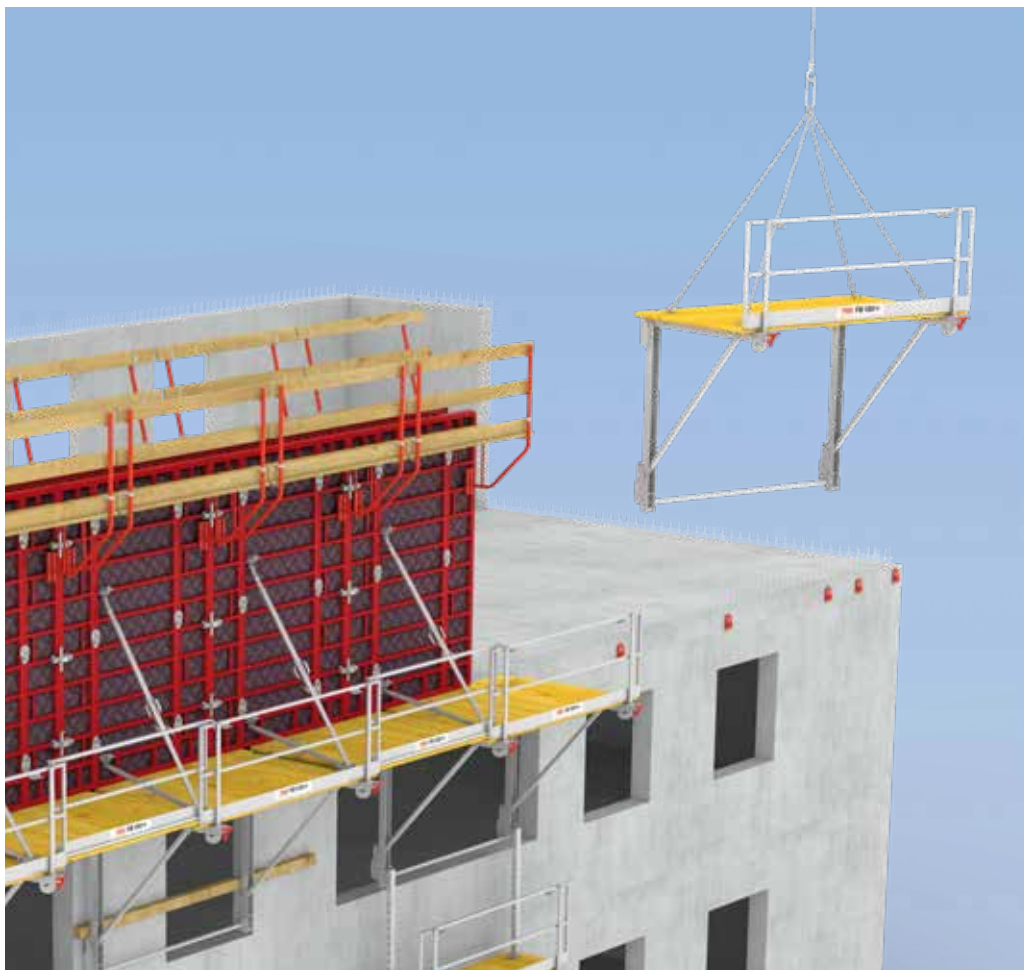


# Folding Platform System FB 180

## The universal working and safety scaffold

Product Brochure – Issue 08/2020



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### Important notes

All current regulations and guidelines applicable in countries where our products are used must be observed.

The photos shown in this brochure feature construction sites in progress. For this reason, safety and anchor details in particular cannot always be considered conclusive or final. These are subject to the risk assessment carried out by the contractor.

In addition, the computer graphics used are to be regarded as system representations. To facilitate understanding, these and the detailed illustrations

shown have been partially reduced to certain aspects. The safety installations that are not shown in these detailed descriptions must nevertheless be available. The systems or items shown might not be available in every country.

Safety instructions and load specifications are to be strictly observed at all times. Separate structural calculations are required for any deviations from the standard design data.

The information contained herein is subject to technical changes in the interests of progress. Errors and typographical mistakes reserved.







# Folding Platform System FB 180

The universal working and safety scaffold

**The Folding Platform System FB 180 is a lightweight and pre-assembled platform system for both simple and complex ground plans. You can use the system as a working scaffold in accordance with DIN EN 12811 and as a safety scaffold in accordance with DIN 4420. In addition, it serves as scaffolding for formwork up to 5.40 m high or as roof edge protection scaffolding.**

The Folding Platform System FB 180 is delivered to the construction site in a pre-assembled state. Due to the large, uniform bracket spacing and the small number of different anchors, platform types and individual components, labour and material costs are particularly low when using this system.

In addition, the Folding Platform FB 180 can be used for different ground plans without any complications. System components are available for internal and external corners. The same corner platform is used on external corners, on both the right and left sides. What's more, you can convert the folding platform system quickly into roof edge protection scaffolding.



### **Straightforward assembly and application**

with only two different platform types, a smart corner solution and identical anchor spacings



### **The folding platform system can be used easily for a wide range of ground plans**

by creating compensation areas as well as internal and external corners without special platforms



### **Cost-effective solutions**

thanks to the flexible range of application options offered by the corner system and the low number of anchor points

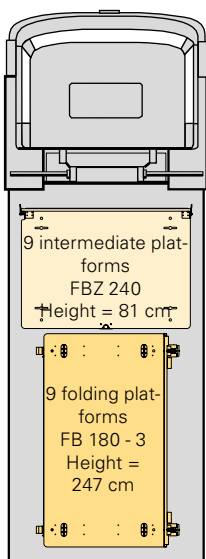
## Straightforward assembly and application

Two platform types, a corner solution and identical anchor spacings

**As the Folding Platform FB 180 is delivered to the construction site in a pre-assembled state, the on-site installation requirements are minimal. With only two different platform types and a well-thought-out corner solution, the working and safety scaffold can be adapted to suit virtually any building geometry.**

Thanks to the foldable guardrail frames, the platforms are very compactly folded when delivered. The folding corner platform is delivered together with the corner platform frame as a single unit. Due to its stacking height of only 27 cm, it is also the case that the PERI Folding Platforms require very little space. Due to the externally-positioned crane eyes, stacks containing up to 10 folding platforms can be attached to the crane at any one time. Stacks with intermediate platforms can be moved easily using a round lifting sling.

The assembly procedure on the construction site is also extremely easy and safe: You can prepare the platforms for attachment to the structure in only a few steps.



Due to its 2.40 m width, the intermediate platform can be loaded crosswise thus saving on space. The stacking height of an individual intermediate platform is only 9 cm; for nine elements, this results in a stacking height of 81 cm.



Up to 45 linear metres of platforms can be loaded onto a truck loading area of 2.50 x 5.00 m. Nine folding platforms stacked on top of each other reach an optimal height loading dimension of 2.47 m.

The on-site installation process is remarkably easy and fast: firstly, release the red safety pawl and then fold out the guardrail. In the process, the safety pawls engage automatically.

Four-sling lifting gear is hooked to the integrated, retractable crane eyes. The platform folds out when lifted; subsequently, the compression strut is installed in the correct position.

### Straightforward handling

The folding platform is remarkably easy to handle thanks to the site-compliant design details. For example, the hand-rail frames of the main platform have integrated nail holes. These allow you to secure infill areas easily using hand-rail boards. In addition, you can fix handrails made of scaffold tubes to the handrail posts of the brackets and the guardrail posts using couplings.

### Outstanding quality

All of the steel components of the folding platform system are galvanised. It is only the corner platform frames and the safety components that are red powder-coated so they are clearly identified. The latter are also permanently attached so they cannot be lost. The end-to-end 45-mm-thick platform decking is made of bonded multi-layered boards with rounded corners and edges, and is non-slip, has a high load-bearing capacity and is resistant to weather conditions and mechanical damage. Compared to individual planks, it is less susceptible to damage, and it fulfils all requirements placed on a safety scaffold.



The folding platform is mounted on site and can be quickly lifted into position using four-sling lifting gear.



The connectors for assembling the compression brace are permanently attached to the construction which means they cannot be lost. Tools are not required for assembly.



45-mm-thick platform decking made of bonded multi-layered plywood boarding.



The Handrail Post FBP for supporting the handrail planks (supplied by the contractor) is screwed into the Multi-Purpose Connector (DW 15).



# The folding platform system can be used easily for a wide range of ground plans

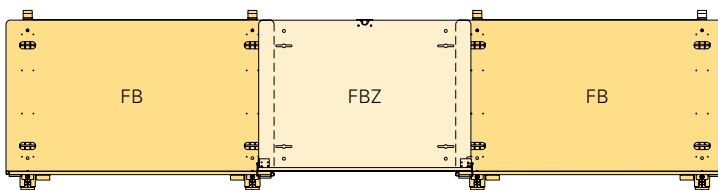
## Compensation areas and corners without special platforms

**You can use the folding platform system for a wide range of applications. Main, intermediate and corner platforms are used for standard applications on walls. The intermediate platform's flexible range of application options also provide for system-compliant safety in the case of compensation areas and internal corners.**

Main and intermediate platforms are combined for standard applications on walls. The main platforms, in combination with the intermediate platforms, allow for a uniform bracket spacing of 2.50 m. The uniform anchor arrangement simplifies and accelerates the installation of the anchors.

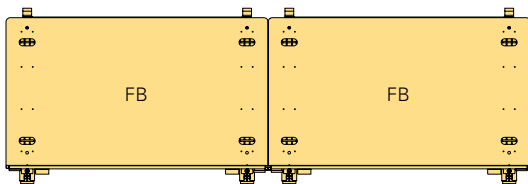
Smaller bracket spacings between the main platforms can be bridged by means of intermediate platforms. In this way, the platform length can be easily and continuously adapted to suit the length of the wall.

At the internal corners, you position the decking of the intermediate platforms on individual brackets. You can make use of folding corner platforms for external corners.



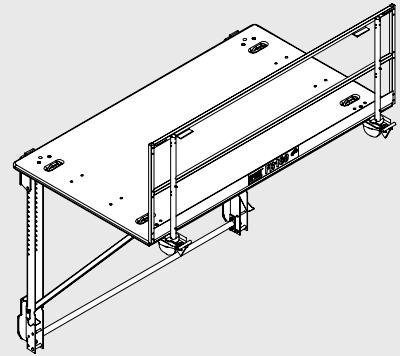
### Standard use with main, intermediate and corner platforms

- Permissible load 300 kg/m<sup>2</sup> (Load Class 4)
- Used, for example, for the storage of reinforcement up to a possible 540 kg load per linear metre of platform



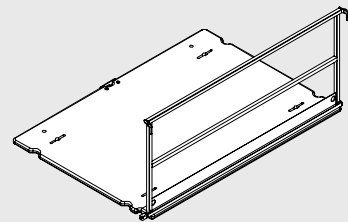
### Special application only with main platforms

- Permissible load 450 kg/m<sup>2</sup> (Load Class 5)
- For special applications (e.g. as landing platform for machinery and building services) with around 2,400 kg load per platform



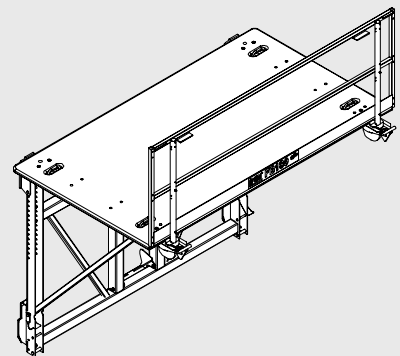
### The Folding Platform FB 180 - 3/300 as a main platform

Working scaffold according to DIN EN 12811, safety scaffold in accordance with DIN 4420, and formwork scaffold for wall formwork.



### The Intermediate Platform FBZ 240

Can be used as an intermediate platform, or with individual brackets as end platform or internal corner platform.



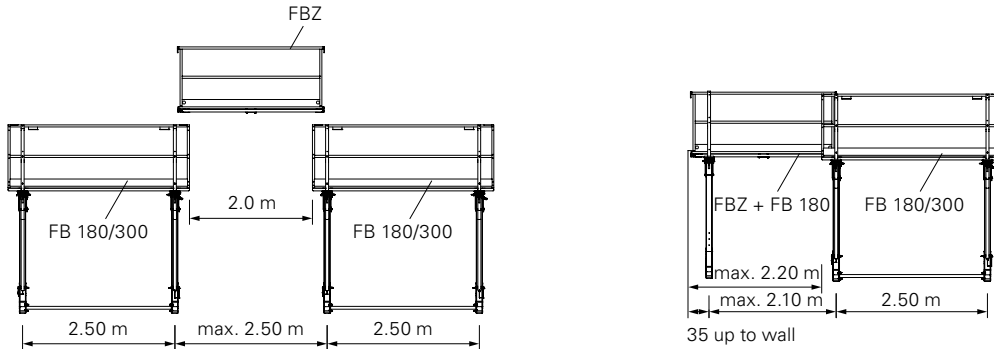
### The Folding Corner Platform FEB 180 - 3/300

The corner platform can be used on both the left and right sides for external corners. Also utilisable as a standard folding platform due to the retractable end stop.



### Range of application options for intermediate platform

You can use the intermediate platform in many different ways. It provides system-compliant safety for compensation areas and internal corners and allows for uniform spacing of the anchor points. It offsets dimensional tolerances. These are not allowed to escalate in any way.



### The intermediate platform as a compensation platform

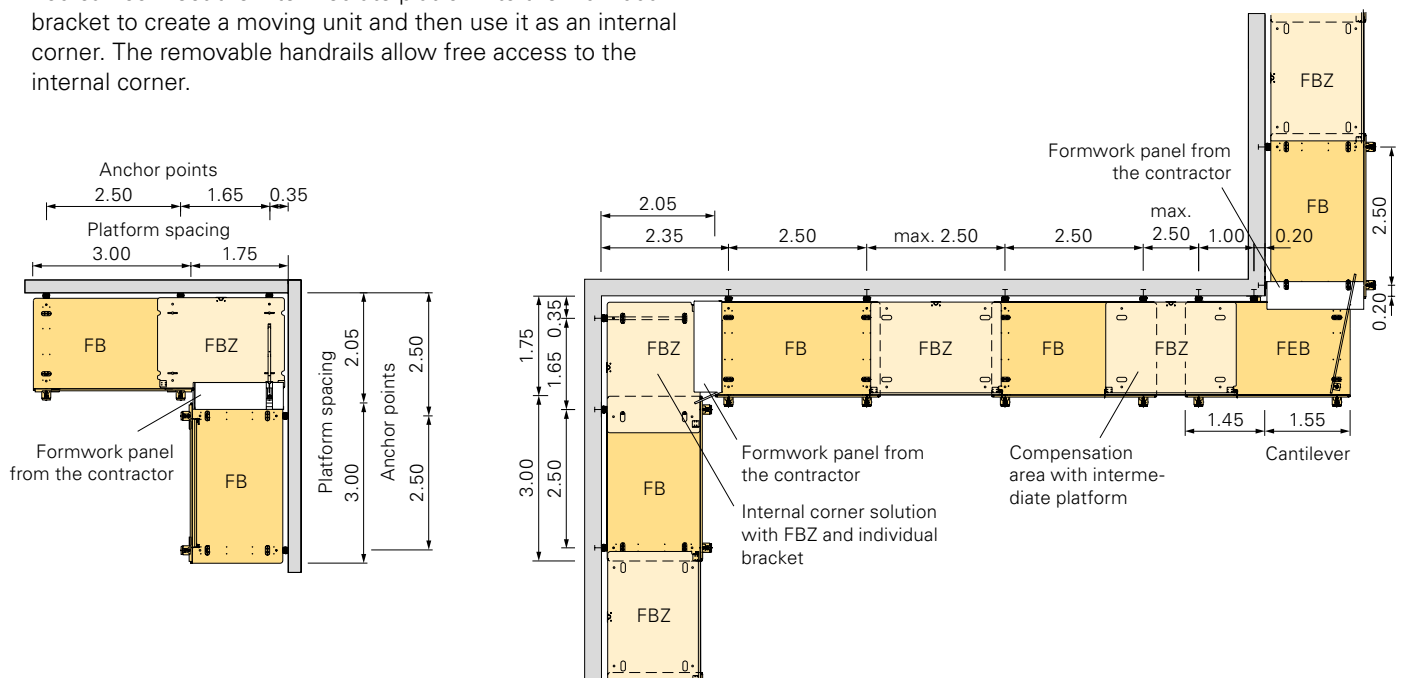
The intermediate platform ensures continuous compensation of up to 2.02 m between the main platforms. In this way you can adapt the system easily to any ground plan.

### The intermediate platform as an end platform

If supplemented with an individual bracket, you can also use the intermediate platform as an end platform. The bracket spacing can be continuously adjusted up to 2.20 m.

### The intermediate platform as an internal corner platform

You can connect the intermediate platform to the individual bracket to create a moving unit and then use it as an internal corner. The removable handrails allow free access to the internal corner.



FB = folding platform  
 FBZ = intermediate platform  
 FEB = folding corner platform

Layout planning with the folding platform system: firstly, the edge areas (internal and external corners, restricted wall returns) are determined. You can then equip the remaining areas with main and intermediate platforms.

## Cost-effective solutions

Flexible use of the folding corner platform and low number of anchor points



**Using the folding corner platform, you can create external corners on both the left and right sides. What's more, only a low number of anchor points are required for the folding platform system. This increases the degree of economic efficiency on your construction site.**

The folding corner platform is delivered together with the corner platform frame as a single unit in order to save space. The folding procedure for the folding corner platform is just as quick as with the main platform. In addition, you can also use the folding corner platform on straight walls with the end stop folded down. This increases the degree of utilisation and thus the cost-effectiveness of the system. Given the fact that you can use the folding corner platform on both the left and right outside corners of a structure, your on-site material requirements are reduced and your logistical processes simplified. With a swivelled support, the platforms cantilever outwards around 1.50 m, producing a continuous working platform at the outside corners.

By the way: you also have the option of converting the folding platform into a folding corner platform at a later time.

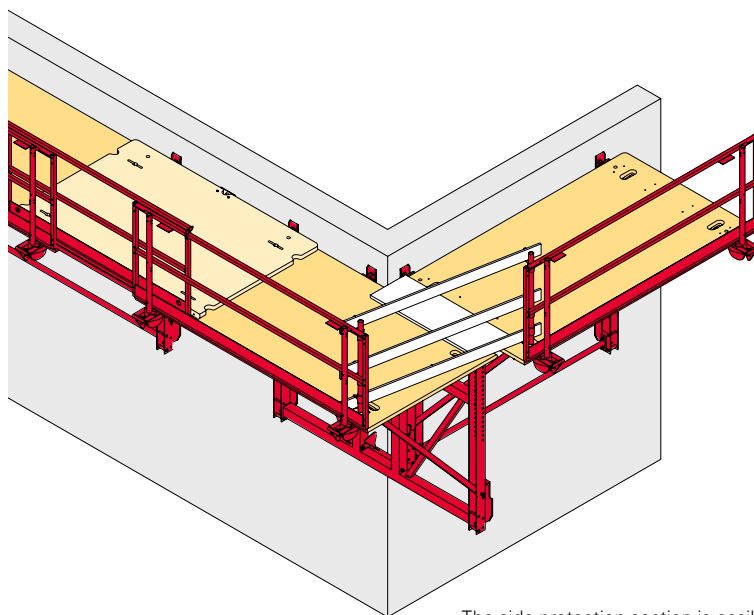
What's more, the low number of required anchor points leads to a reduction in the material costs and the work involved. The maximum anchor spacing when using the folding platform is 2.50 m – as a result, this is significantly greater than when using individual brackets. This significantly reduces labour costs and material requirements for anchor points. Moreover, various anchoring options increase the cost-effectiveness of the system.



The folding corner platform on a straight wall section with vertically positioned PERI UP Reinforcement Scaffolding.



Folding corner platforms are used for the external corners. They can be folded just as easily as the normal folding platforms.



The side protection section is easily closed with standard guardrail boards.



## System overview

### Folding Platform System FB 180 overview





### The Folding Platform System FB 180

The working and safety scaffold system consists of:

- Folding Platform FB 180 - 3/300 (main platform)
- Intermediate Platform FBZ 240
- Folding Corner Platform FEB 180 - 3/300 (main platform with corner platform frame)
- Folding Bracket FB 180 - 3

The following accessories are also available:

- Finishing Platform FBN-2/300
- Support extension

You can use the folding platform system either as a working scaffold, a formwork scaffold, a safety scaffold, as roof edge protection scaffolding, for bridging openings and as deck bridging.

The following pages describe standard applications. The explanations show important basic principles but do not claim to be comprehensive. All detailed specifications as well as any possible country-specific data can be found in the Instructions for Assembly and Use. Furthermore, the corresponding Instructions for Use must also be observed.

## The folding platform as a working scaffold

Reduced material and labour costs thanks to various anchoring options

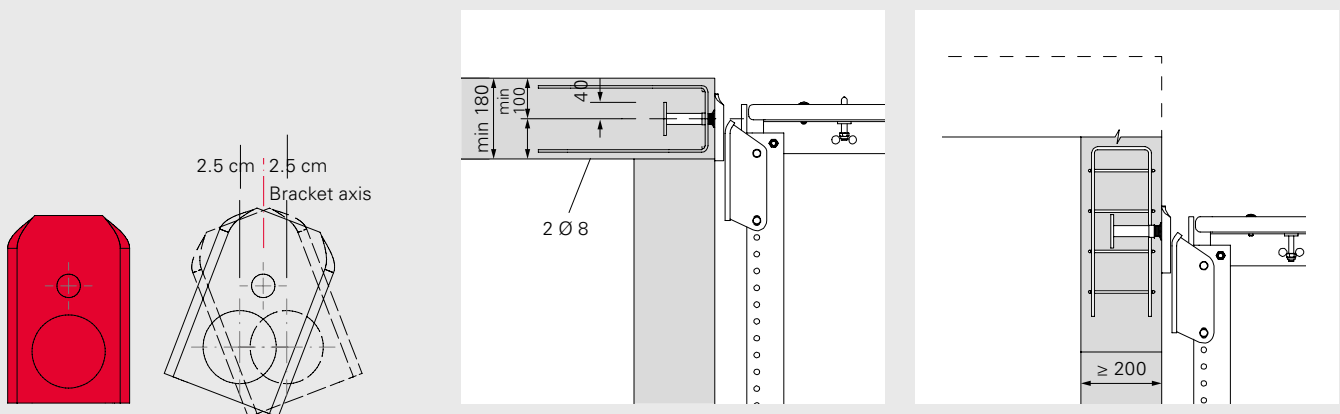
**In the standard application, you can use the folding platform up to Load Class 4. Moreover, it is also possible to use it as a working scaffold up to scaffolding group 5 as part of a special application.**

When using the folding platform as a working scaffold, you can choose anchoring that is suitable for the application. This lowers the material costs and the work involved on your construction site.

### Standard mounting head

The standard anchorage for use as formwork or a working scaffold is the Standard Mounting Head FB. This is permissible for use up to Load Class 4 with a live load of 300 kg/m<sup>2</sup>. For special applications consisting only of main platforms, the permissible load can even be increased to 450 kg/m<sup>2</sup>. This paves the way for the assembly of reinforcement scaffolding. It is possible to carry out the anchoring on either the slab edge or on the wall.

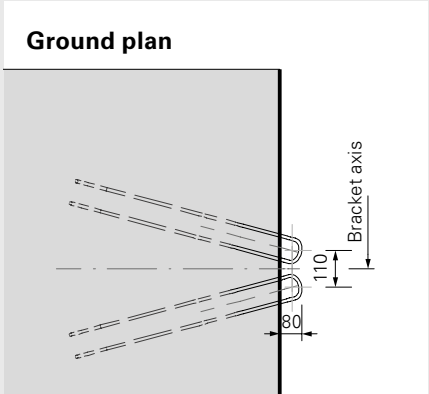
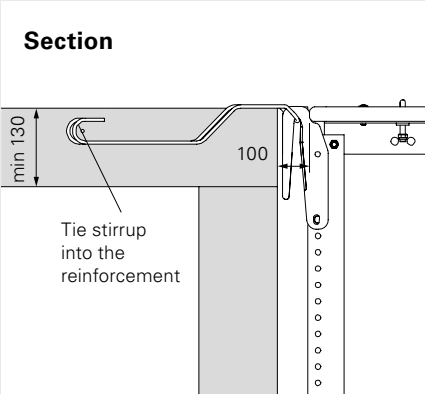
In connection with the Suspension Shoe FB, which is mounted beforehand, it is possible to compensate for lateral dimensional tolerances of up to 2.5 cm. This grants you greater flexibility when positioning the anchors – a benefit when the degree of reinforcement is high.





**Loop mounting head**

The convenient Loop Mounting Head-2 FB allows for mounting up to Load Class 3 (200 kg/m<sup>2</sup>), thus increasing the degree of cost-effectiveness of your construction site.



## The folding platform as a formwork scaffold

For formwork heights up to 5.40 m

**You can also use the folding platform as a formwork scaffold: with mounted formwork as well as supported formwork, with or without tension anchors. On account of the high live loads, you have your materials and your equipment to hand at great heights.**

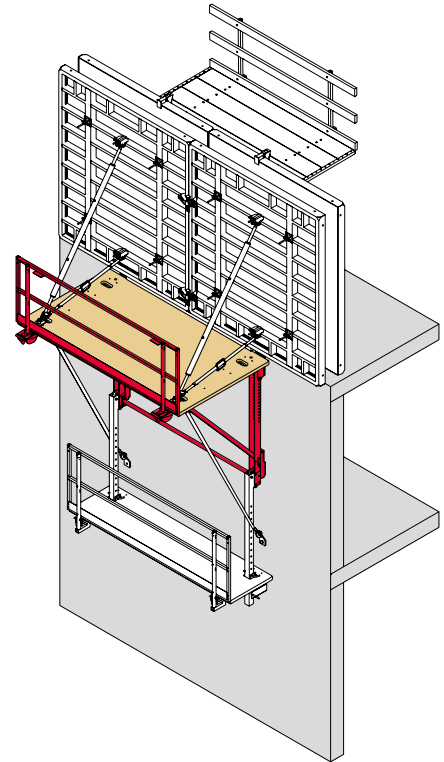
The standard configuration makes provisions for mounted formwork up to 5.40 m high. When carrying out reinforcement work from the outside, the folding platform provides a sufficient loading capacity of 200 kg/m<sup>2</sup> for material storage.

When carrying out reinforcement work from the inside, loads of up to 150 kg/m<sup>2</sup> are permitted. You can increase the permissible wind force by fitting a tension anchor.



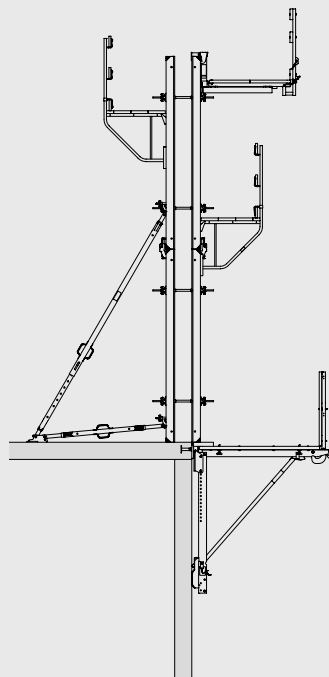
As the folding platform carries very high loads, you can also use high facade scaffolding on the platforms. This is beneficial, for example, if the terrain is rough beneath the working area.

With tension anchoring, external wind forces are reliably transferred. Wind bracing secures high formwork in order to prevent tipping in case the reinforcement used for stabilisation is insufficient.

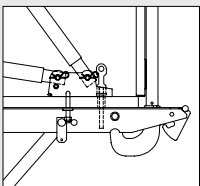
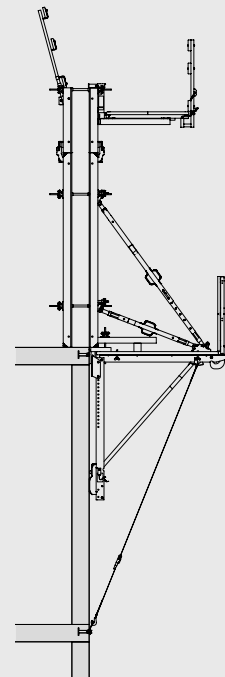


You can also support the formwork on the platforms using push-pull props. To do so, fasten the base plates to the multi-purpose connector of the folding platform. In this case, the maximum formwork height depends on the wind load. During stormy conditions, the formwork is to be supported inwards.

**Primary formwork inside, closing formwork outside (installation of reinforcement from the outside)**



**Primary formwork outside, closing formwork inside (installation of reinforcement from the inside)**



Fixing the push-pull prop shoes to the Multi-Purpose Connector DW 15.



## The folding platform as roof edge protection scaffold

Converted in only a few work steps



**You can also use the folding platform system as a roof edge protection scaffold by incorporating guardrail extensions and a safety net.**

To increase the height of the side protection, simply insert the guardrail extension into the handrail tube of the folding platform. The coupling for fixing the top horizontal scaffold tube to the attached safety net is securely connected with the handrail extension.

With 2-m-high, commercially available safety nets and a second scaffold tube used as a weight, you can assemble the roof edge protection scaffold easily from the folding platform.



You can slip the safety net onto a scaffold tube very easily.



The Handrail Extension FB is simply inserted into the handrail tube of the folding platform.

## The folding platform in a concrete frame construction

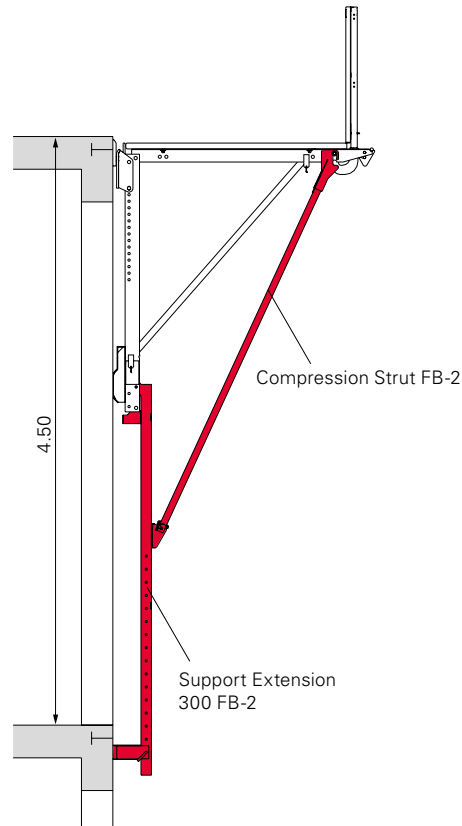
Also used with the finishing platform

**The support extension allows the use of the folding platform in a concrete frame construction without any complicated support measures for the bracket base point. You can adapt the pressure point to the height of the storey.**

With the support extension and compression strut, you can bridge storey heights – and therefore building openings such as windows – up to 4.50 m. The support extension, with lengths of 2.00 m or 3.00 m, is simply suspended and therefore pivots to a safe position.

In the process, the load-bearing capacity of the folding platform is fully maintained.

Alternatively, you can bridge wall openings with horizontally placed timbers or steel walers.



You can adapt support extensions and finishing platforms easily to suit wall openings in the concrete frame.

One finishing platform on the support extension provides a safe working area for finishing work or the assembly of tension bracing.

You can fold the handrail of the finishing platform. This results in advantages such as faster assembly and dismantling as well as reduced space requirements during transportation and storage.

The robust multilayer boarding also ensures safe working conditions and a long service life for the finishing platform.



The pressure point of the Support Extension 300 FB is adjustable in 10-cm increments.



## The folding platform system in action



### **“Viertel Zwei - Rondo” Residential Complex, Vienna, Austria**

The impressive city development project is situated in the heart of Vienna, the capital city of Austria. Seven extraordinary residential buildings housing a total of 200 apartments and a nursery school have been erected around the Krieau Race Track right next to the “am Grünen Prater” district as part of the “Rondo” expansion project. The four to ten-storey and up to 33-m-high structures are characterised by balconies which extend all the way around the upper floors like continuous rings.

The tower-like buildings were realised exclusively as concrete constructions. For the shared 11,500 m<sup>2</sup> basement area

and the Rondo Towers, a construction period of only 10 months was scheduled. For this reason, the PERI engineers developed a project-specific formwork concept together with the project managers from the construction company that itemised the respective work operations on the various in-situ concrete areas.

The rectangular walls, which are arranged in a nested pattern, were formed using the TRIO 330 and climbed in advance with the help of the Folding Platform System FB 180. This made it possible to uncouple the wall and slab work and form the balcony areas.





#### Horst Höfer, Project Manager

“Thanks to the high level of expertise and tremendous commitment of the PERI engineers, a technically and cost-effectively attractive solution could be found to meet all challenges.”

---

Climbing in advance on the Folding Platform FB 180 using Panel Formwork TRIO 330 in order to uncouple work processes and optimise the construction schedule

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Quick and straightforward assembly process despite the building's geometry being complex and arranged in a nested pattern

---

Advantageous design with only three different platform types and anchor spacing that is always identical

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The slab formwork was realised by means of quickly assembled SKYDECK panels whereby striking operations were particularly fast due to the drophead system. This meant that the large-scale reinforced concrete slab of the shared basement could be installed in record time at the beginning of the project with reduced on-site material requirements.



The Folding Platform System FB 180 served as a working and formwork scaffold for the office and hotel building. An RCS MP Landing Platform could be positioned freely in order to relocate and temporarily store formwork material.

### **Stadtquartier Hirschgarten, MK 4 "Friends", Munich, Germany**

The residential complex near the city centre with its 260 apartments and office and hotel units is characterised by its two 16-storey residential towers, each reaching a height of 53 m. The basement storeys house the underground garage, storage rooms and technical facilities.

The ostensibly irregularly-arranged, triangular oriels are the defining feature of the external facade of the two residential towers. As part of the project, a total of around 40,000 m<sup>3</sup> of concrete and 5,700 t of constructional steel were installed in only twelve months of construction time. In order to stick to the demanding schedule, MAXIMO Panel Formwork was chosen for the formation of the walls. This was combined with the Folding Platform FB 180, which was used as a working and formwork scaffold with supported formwork but without tension anchoring. The base plates were simply fastened to the multi-purpose connector of the folding platform in order to support the formwork on the platforms with push-pull props. In this case, the maximum formwork height depended on the wind load.

In its role as a working and formwork scaffold, the folding platform had to transfer high loads because the construction site personnel also required access to work equipment and materials at great heights. In this respect, the cantilever-mounted RCS MP Landing Platform was used in a supporting role for relocating and temporarily storing formwork material. Thanks to the PERI PROKIT, it was possible to completely enclose the building without any gaps. This was even possible at the transition between the edge of the building and the platform access point, which increased the level of safety for the construction workers enormously.





The Folding Platform FB 180 together with the MAXIMO Wall Formwork ensured that the strict tempo specifications could be met.



On-site assembly of the Folding Platform FB 180 proved to be quick and straightforward as it was delivered to the construction site in a pre-assembled state.

### **HUMA Shopping Centre, Sankt Augustin, Germany**

Given the allotted time of only ten months for shell construction, the construction project team working on the three-storey shopping world in Sankt Augustin was under enormous pressure to meet deadlines. A total of 37,000 m<sup>3</sup> of concrete and 5,000 t of steel were erected on a footprint of 16,000 m<sup>2</sup>, which offers space for 135 shops. At peak times, up to 100 workers were at the grindstone on a daily basis to make sure the extensive formwork, reinforcement and concreting work was completed.

The Folding Platform FB 180 supported the construction site team throughout the wall concreting operations, whereby the storey height was either 5.40 m or 4.80 m. Designed as a formwork scaffold with mounted MAXIMO Panel Formwork, the system accelerated the progress of the construction work, which was aided in no small way by the quick and simple assembly of the foldable components. On account of their identical anchor spacings, the three different platform types accelerated and simplified the anchor installation process. The combination of main and intermediate platforms also meant that the system could be continuously adapted to suit the wall lengths.

### **Headquarters of the TDT, Warsaw, Poland**

The new headquarters of the Technical Transportation Inspection Body (TDT) in the capital city of Poland is made up of three sections: the two-storey underground garage, an office section from the 1<sup>st</sup> to the 7<sup>th</sup> floor and the accommodation section on the 8<sup>th</sup> to 17<sup>th</sup> floors.

In addition to using the hydraulic RCS Rail Climbing System, which paved the way for a weekly concreting cycle for the above-ground floors, the Folding Platform FB 180 was also used as a working scaffold. Labour and material costs on the construction site were reduced on account of the fact that the folding platform is made up of very few components. This made the system particularly cost-effective. What's more, the fact that the PERI systems could be combined provided a project-related solution for the construction site specifications. The ability to configure the individual components at will, offered a high degree of flexibility and enabled the work to be carried out quickly. For training and technical support purposes, a PERI supervisor was present on site in order to assist the construction site personnel.



**The optimal System  
for every Project and  
every Requirement**



**Wall Formwork**



**Column Formwork**



**Slab Formwork**



**Climbing Systems**



**Bridge Formwork**



**Tunnel Formwork**



**Shoring Systems**



**Construction Scaffold**



**Facade Scaffold**



**Industrial Scaffold**



**Access**



**Protection Scaffold**



**Safety Systems**



**System-Independent  
Accessories**



**Services**



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